Report 10341 Final 20 June 1994

> GENCORP **AEROJET**

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Earth Observing System/ Advanced Microwave Sounding Unit-A (EOS/AMSU-A) **Acquisition Activities Plan**

Contract No: NAS 5-32314

CDRL: 508

Submitted to:

National Aeronautics and Space Administration Goddard Space Flight Center Greenbelt, Maryland 20771

Submitted by:

Aerojet 1100 West Hollyvale Street Azusa, California 91702

Aerojet

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REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

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Submitted to:

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Aerojet 1100 West Hollyvale Street Azusa, California 91702

INTRODUCTION

1.1 Identification

This is the Acquisition Activities Plan for the software to be used in the Earth Observing System (EOS) Advanced Microwave Sounding Unit-A (AMSU-A) system. This document is submitted in response to Contract NAS 5-32314 as CDRL 508.

1.2 Scope

This document defines the activities required to acquire software for the EOS/AMSU-A program.

1.3 Purpose and Objectives

The purpose of the Acquisition Activities Plan is to provide the software acquisition for the EOS/AMSU-A software.

1.4 Document Status and Schedule

This is the final submittal of the EOS/AMSU-A Acquisition Activities Plan. It will be resubmitted with any required updates prior to to the Preliminary Design Review (PDR).

1.5 Documentation Organization

The EOS/AMSU-A Software Documentation Tree is as shown in Figure 1.

Software Management Plan Acquisition Activities Plan Software Standards and Procedures Assurance Plan Configuration Management Plan	CDRL 008 CDRL 508 CDRL 402 CDRL 309 CDRL 005
Software Product Specifications Software Concept Document Software Requirements Software Interface Requirements Document Software Detailed Design Document Software Interface Design Document Firmware Support Manual Software Version Description Operations Procedure Manual User's Guide Software Maintenance Manual	CDRL 306
Firmware Product Specifications Firmware Concept Document Firmware Requirements Firmware Interface Requirements Document Firmware Detailed Design Document Firmware Interface Design Document Firmware Version Description	CDRL 306
Software Test Plan Software Test Procedures Software Test Reports Firmware Test Procedures Firmware Test Reports	CDRL 033 CDRL 415 CDRL 217 CDRL 415 CDRL 217

Figure 1 EOS/AMSU-A Software Documentation Tree

RELATED DOCUMENTATION

2.1 Parent Documents

Report 10339

Software Management Plan

(NASA EOS/AMSU-A CDRL 008)

2.2 Applicable Documents

The following documents are referenced or applicable to this report. Unless otherwise specified, the latest issue is in effect.

National Aeronautics and Space Administration

NASA-DID-M100

Acquisition Activities Plan Data Item Description.

GSFC 422-10-04

Earth Observing System (EOS) Instrument Project

Software Acquisition Management Plan

2.3 Information Documents

None.

PROCUREMENT ACTIVITIES PLAN

The only software to be acquired by Aerojet for the EOS/AMSU-A project will be the embedded operating system software furnished with the SUN Workstation (to be used as ground support equipment at the spacecraft integration facility) and the OASIS/CSTOL software used in this SUN Workstation computer.

The embedded operating system software is an integral part of the workstation computer and is not procured as separate software. As such, it will not be placed under configuration management by Aerojet.

The OASIS/CSTOL software will be procured from the University of Colorado in the latest version available at the time of acquisition. The acquisition will not be necessary until approximately July 1995 when the OASIS/CSTOL software will be needed to support the Workstation operational software development. It is understood that the NASA EOS project intends to baseline the OASIS/CSTOL software for the EOS PM project in the December 1996 time frame. Therefore, Aerojet will then obtain this baseline version and make necessary upgrades to the OASIS/CSTOL workstation environment at that time.

3.1 Procurement Package Preparation

OASIS/CSTOL will be procured by purchase order issued by Aerojet, Azusa, CA. The purchase order will specify, based on prior coordination with NASA and the University of Colorado, the latest version available.

3.2 Proposal Evaluation

No proposal will be required. A quotation will be obtained prior to issuance of the purchase order.

3.3 Contract Negotiation

Not applicable.

3.4 Procurement Risks

OASIS/CSTOL has been specified for use on EOS/AMSU-A. No risks have been identified.

ORGANIZATIONAL REQUIREMENTS AND LIFE CYCLE ADAPTATION

Not applicable.

MANAGEMENT APPROACH

5.1 Software Management Responsibilities

Kay Williams, as manager of Software Development, has ultimate responsibility for all software development at Aerojet. The EOS/AMSU-A Product Team Leader, Robert Schwantje, from Kay Williams' Software Development organization, is responsible for all aspects of the EOS/AMSU-A software.

5.2 Categorization and Classification Policy

OASIS/CSTOL is the only software acquisition planned for EOS/AMSU-A. It is considered commodity software by Aerojet, a user, and Aerojet has not input into the development or breakdown of the OASIS/CSTOL system.

Aerojet will obtain all the documentation relevant to the use of the software at the time of purchase. No other documentation concerning this software will be produced, and it will not be placed under Aerojet configuration management control because it is not controlled by Aerojet.

TECHNICAL APPROACH

This section is not applicable since Aerojet is acquiring OASIS/CSTOL as a fully developed system and Aerojet has no technical input into its development.

The Aerojet implementation of OASIS/CSTOL in the SUN Workstation is for use as a "listen only" system so that minor changes made to OASIS/CSTOL, after Aerojet implements its operational software within the OASIS/CSTOL environment, would not have an adverse effect on the Aerojet system.

FORMS

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The last page of a report facing the third cover is the Report Documentation Page, RDP. Information presented on this page is used in announcing and cataloging reports as well as preparing the cover and title page. Thus, it is important that the information be correct. Instructions for filing in each block of the form are as follows:

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